EAST 7/26

L Number	Hits	Search Text	DB	Time stamp
5	0	jp2002310132	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/07/26 11:11
6	1	jp2002310132a	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/07/26 11:11
7	41	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) and 16/221-392.ccls.	USPAT; US-PGPUB	2004/07/26 11:16
9	4	(viscous or fluid or grease or oil or liquid or hydraulic) with (damper or dampener) and 16/221-392.ccls.	USOCR	2004/07/26 11:17
8	42	(viscous or fluid or grease or oil or liquid or hydraulic) with (damper or dampener) and 16/221-392.ccls.	USPAT; US-PGPUB	2004/07/26 11:19
10	5	(viscous or fluid or grease or oil or liquid or hydraulic) with (damper or dampener) and 16/303.ccls.	USPAT; US-PGPUB	2004/07/26 11:20
11	21	(viscous or fluid or grease or oil or liquid or hydraulic) and 16/303.ccls.	USPAT; US-PGPUB	2004/07/26 11:23
12	1468	(viscous or silicone or fluid or grease or oil or liquid or hydraulic) same (damper or dampener) same (rotating or rotary)	USPAT; US-PGPUB	2004/07/26 11:24
13	778	(viscous or silicone or fluid or grease or oil or liquid or hydraulic) with (damper or dampener) with (rotating or rotary)	USPAT; US-PGPUB	2004/07/26 11:25
14	54	(viscous or silicone or fluid or grease or oil or liquid or hydraulic) with (damper or dampener) with (rotating or rotary) and (cam$6 or step or stepped) with end with (shaft or plunger or rotors!)	USPAT; US-PGPUB	2004/07/26 11:26

-	149	("5678786" "4831298" "4973233" "5394283" "5456653" "4307309" "4412796" "4460319" "4506558" "4619349" "4628245" "4632337" "4759324" "4800311" "4834623" "4858304" "4903497" "4914335" "5189323" "5191250" "5214365" "5334894" "5346441" "5373436" "5418414" "5481585" "5518493" "5681153" "5706658" "5804935" "5844342" "5983635" "6005358" "6109864" "6133664" "6200117" "6210103" "6210103" "6226988" "4249896" "4257280" "4267647" "4274804" "4276511" "4292008" "4319398" "4327299" "4329601" "4379984" "4388579").pn. ("4400659" "4407258" "4409505" "4425883" "4437213" "4445822" "4447220" "4450813" "4455499" "4461534" "4468604" "4477760" "4479404" "4481766" "4491340" "4497167" "4500269" "4525123" "4531079" RE31965 "4534754" "4535373"	USPAT; US-PGPUB	2004/07/25 13:17

-	2	(("6530121") or ("d486833")).PN.	USPAT; US-PGPUB	2004/07/25 13:04
-	1	6530121.URPN.	USPAT	2004/07/25 13:07
-	8	("5697124" | "5704094" | "5715575" | "5966776" | "5996178" | "6115886" | "6292980" | "6295358").PN.	USPAT	2004/07/25 13:07
-	9	(US-6745436-$ or US-6295358-$ or US-6292980-$ or US-6115886-$ or US-5996178-$ or US-5966776-$ or US-5715575-$ or US-5704094-$ or US-5697124-$).did.	USPAT	2004/07/25 13:09

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-	0	(("5678786" "4831298" "4973233" "5394283" "5456653" "4307309" "4412796" "4460319" "4506558" "4619349" "4628245" "4632337" "4759324" "4800311" "4834623" "4858304" "4903497" "4914335" "5189323" "5191250" "5214365" "5334894" "5346441" "5373436" "5418414" "5481585" "5518493" "5681153" "5706658" "5804935" "5844342" "5983635" "6005358" "6109864" "6133664" "6200117" "6210103" "6210103" "6226988" "4249896" "4257280" "4267647" "4274804" "4276511" "4292008" "4319398" "4327299" "4329601" "4379984" "4388579").pn. ("4400659" "4407258" "4409505" "4425883" "4437213" "4445822" "4447220" "4450813" "4455499" "4461534" "4468604" "4477760" "4479404" "4481766" "4491340" "4497167" "4500269" "4525123" "4531079" RE31965 "4534754" "4535373"	USPAT; US-PGPUB	2004/07/25 13:19

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-	58	(rotors! or first adj rotor same second adj rotor) same (damper or dampener) same (fluid or viscous)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/07/25 13:32
-	1	2004-399454.NRAN.	DERWENT	2004/07/25 13:23
-	5	(rotors! or first adj rotor same second adj rotor) same (damper or dampener) same (fluid or viscous) and nifco.asn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/07/25 13:35
-	2	(US-4685232-$).did. or (US-20030228918-$).did. or (JP-2004176806-$).did.	USPAT; US-PGPUB; EPO	2004/07/26 05:50
-	198	379/433.13.ccls.	USPAT; US-PGPUB; EPO	2004/07/26 05:56
-	59	455/$.ccls. and (damper or dampener)	USPAT; US-PGPUB; EPO	2004/07/26 05:53
-	4	379/433.13.ccls. and (viscous or fluid or grease or oil or hydraulic) with (damper or dampener or check or closure or shcok adj absorb$4)	USPAT; US-PGPUB; EPO	2004/07/26 05:59
-	1	cellphone and (viscous or fluid or grease or oil or hydraulic) with (damper or dampener or check or closure or shcok adj absorb$4)	USPAT; US-PGPUB; EPO	2004/07/26 05:59
-	150	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) same hinge	USPAT; US-PGPUB; EPO	2004/07/26 06:00
-	14	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) same hinge same rotor	USPAT; US-PGPUB; EPO	2004/07/26 06:11
-	798	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) same rotor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 06:11
-	29	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) same rotor and 16/$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:49
-	46	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) and 16/221-392.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 11:16
-	7	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) and 16/330,303.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 07:52
-	29	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) same rotor and 16/$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 07:53
-	53	(viscous or fluid or grease or oil or hydraulic) with (damper or dampener) with rotary and 16/$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:17
-	117	(16/54).CCLS.	USPAT; US-PGPUB	2004/07/26 11:11
-	2198	(viscous or fluid or liquid or grease or oil or hydraulic) with (damper or dampener) with (rotor or rotary or rotating or rotate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:52

-	167	(viscous or fluid or liquid or grease or oil or hydraulic) with (damper or dampener) with (rotor or rotary or rotating or rotate) same (coaxial$5 or concentric$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:53
-	136	(viscous or fluid or liquid or grease or oil or hydraulic) with (damper or dampener) with (rotor or rotary or rotating or rotate) same (coaxial$5 or concentric$5) with (rotor or rotary or rotating or rotate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:53
-	2	(viscous or fluid or liquid or grease or oil or hydraulic) with (damper or dampener) with (rotor or rotary or rotating or rotate) same (coaxial$5 or concentric$5) with (rotor or rotary or rotating or rotate) same stepped	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:54
-	16	(viscous or fluid or liquid or grease or oil or hydraulic) with (damper or dampener) with (rotor or rotary or rotating or rotate) and (rotor or rotary or rotating or rotate) and stepped same rotor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:58
-	0	6142269.pn. and (spring or bias$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/26 09:59
-	0	6142269.URPN.	USPAT	2004/07/26 09:59
-	3	("2192876" | "4768630" | "4842106").PN.	USPAT	2004/07/26 09:59

PLUS 7/26/04

Butler, Douglas

From: PLUS
Sent: Monday, June 14, 2004 11:01 AM
To: Butler, Douglas
Subject: PLUS Results for 10662348

Here are the PLUS search results for 10662348.

This search was prepared by the staff of the Scientific and Technical Information Center, SIRA. If you have questions or comments about this search, please reply via email to PLUS@uspto.gov.


10662348_QUAL.txt


10662348_LIST.txt


10662348_WEST.txt


10662348_EAST.txt


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10662348_CLS.txt


10662348_CLSTITLES.txt


10662348_WDS.txt

PLUS Search Results for S/N 10662348, Searched June 14, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

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10662348_CLS
Most Frequently Occurring Classifications of Patents Returned
From A Search of 10662348 on June 14, 2004

Original Classifications

4	123/216
4	310/49R
4	318/254
3	60/487
3	310/90
3	360/97.03
2	29/598
2	318/139
2	318/466
2	318/701
2	322/32
2	324/161
2	415/112
2	415/115
2	417/204
2	417/42
2	433/132

Cross-Reference Classifications

6	310/268
6	310/42
5	318/254
4	123/242
4	310/112
4	310/114
4	310/67R
4	360/98.07
4	360/99.08
3	91/485
3	310/198
3	310/68R
3	310/90
3	318/138
3	415/111
3	417/205
3	417/410.3
2	29/596
2	29/598
2	180/65.7
2	180/65.8
2	277/318
2	277/375
2	277/408
2	310/115
2	310/156.36
2	310/162
2	310/179
2	310/185
2	310/89
2	318/539
2	324/166
2	360/133
2	366/89
2	384/110

2 384/448
2 415/113
2 415/176
2 415/199.5
2 415/229
2 415/230
2 415/231
2 415/26
2 415/49
2 416/114
2 416/96A
2 416/97R
2 417/203
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2 418/201.1
2 425/379.1
2 433/126

Combined Classifications
9 318/254
6 310/268
6 310/42
6 310/90
5 123/216
5 123/242
5 310/114
5 310/49R
5 310/67R
5 360/98.07
4 29/598
4 310/112
4 360/99.08
3 29/596
3 60/487
3 91/485
3 310/162
3 310/198
3 310/68R
3 318/138
3 360/97.03
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2 267/140.12
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2 416/97R
2 417/203
2 417/204
2 417/269
2 417/42
2 417/423.12
2 417/45
2 417/486
2 425/379.1
2 433/126
2 433/132
2 494/37

10662348_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned From A Search of 10662348 on June 14, 2004

9 318/254 (4 OR, 5 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/254 SELF-COMMUTATED IMPULSE OR RELUCTANCE MOTORS

6 310/268 (0 OR, 6 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/261 ..Rotor structure
310/264 ...Armatures
310/268 ....Disc

6 310/42 (0 OR, 6 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/42 ..With assembling, metal casting or machining feature

6 310/90 (3 OR, 3 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/66 ..With other elements
310/90 ...Bearing or air-gap adjustment or bearing lubrication

5 123/216 (4 OR, 1 XR)
Class 123 : INTERNAL-COMBUSTION ENGINES
123/200 ROTARY
123/216 .With charge treatment means

5 123/242 (1 OR, 4 XR)
Class 123 : INTERNAL-COMBUSTION ENGINES
123/200 ROTARY
123/241 .With compression, combustion, and expansion in a single variable volume
123/242 ..Planetating rotor

5 310/114 (1 OR, 4 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/114 ..Plural rotary elements

5 310/49R (4 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/46 ..Magnetic motors
310/49R ...Step-by-step

5 310/67R (1 OR, 4 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC

310/40R .Rotary
310/66 ..With other elements
310/67R ...Inbuilt or incorporated unit

5 360/98.07 (1 OR, 4 XR)
Class 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL
360/88 RECORD TRANSPORT WITH HEAD STATIONARY DURING TRANSDUCING
360/97.01 .Disk record
360/98.01 ..Plural disks
360/98.07 ...Rotational drive detail

4 29/598 (2 OR, 2 XR)
Class 029 : METAL WORKING
29/592 METHOD OF MECHANICAL MANUFACTURE
29/592.1 .Electrical device making
29/596 ..Dynamoelectric machine
29/598 ...Rotor

4 310/112 (0 OR, 4 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/112 ..Plural units, structurally united

4 360/99.08 (0 OR, 4 XR)
Class 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL
360/88 RECORD TRANSPORT WITH HEAD STATIONARY DURING TRANSDUCING
360/97.01 .Disk record
360/99.08 ..Rotational drive detail

3 29/596 (1 OR, 2 XR)
Class 029 : METAL WORKING
29/592 METHOD OF MECHANICAL MANUFACTURE
29/592.1 .Electrical device making
29/596 ..Dynamoelectric machine

3 60/487 (3 OR, 0 XR)
Class 060 : POWER PLANTS
60/325 PRESSURE FLUID SOURCE AND MOTOR
60/487 .Input pump and rotary output motor system having displacement varying type of direction or speed selector

3 91/485 (0 OR, 3 XR)
Class 091 : MOTORS: EXPANSIBLE CHAMBER TYPE
91/472 THREE OR MORE CYLINDERS ARRANGED IN PARALLEL RADIAL OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION AXIS
91/484 .Control valve seating surface contact maintained by fluid pressure bias
91/485 ..Disc valve

3 310/162 (1 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC

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          310/40R        .Rotary
          310/159        ..A.C.
          310/162        ...Synchronous

  3  310/198        (0 OR, 3 XR)
          Class    310 :  ELECTRICAL GENERATOR OR MOTOR STRUCTURE
          310/10         DYNAMOELECTRIC
          310/40R        .Rotary
          310/179        ..Windings and core structure
          310/195        ...Armature or primary
          310/198        ....Plural windings

  3  310/68R        (0 OR, 3 XR)
          Class    310 :  ELECTRICAL GENERATOR OR MOTOR STRUCTURE
          310/10         DYNAMOELECTRIC
          310/40R        .Rotary
          310/66         ..With other elements
          310/68R        ...Electric circuit elements

  3  318/138        (0 OR, 3 XR)
          Class    318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
          318/138        SPACE-DISCHARGE-DEVICE COMMUTATED MOTOR

  3  360/97.03      (3 OR, 0 XR)
          Class    360 :  DYNAMIC MAGNETIC INFORMATION STORAGE OR
                            RETRIEVAL
          360/88          RECORD TRANSPORT WITH HEAD STATIONARY DURING
                             TRANSDUCING
          360/97.01       .Disk record
          360/97.02       ..Environmental control (e.g., air filter,
                             temperature control)
          360/97.03       ...Plural disks

  3  415/111        (0 OR, 3 XR)
          Class    415 :  ROTARY KINETIC FLUID MOTORS OR PUMPS
          415/110         WITH LUBRICATING, SEALING, PACKING OR BEARING
                             MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FL
UID
                             OR FLUID BIASED SEAL, ETC.)
          415/111         .For shaft sealing, packing, lubricating or
                             bearing means

  3  417/205        (0 OR, 3 XR)
          Class    417 :  PUMPS
          417/199.1       DIVERSE PUMPS
          417/205         .Series

  3  417/410.3      (0 OR, 3 XR)
          Class    417 :  PUMPS
          417/321         MOTOR DRIVEN
          417/410.1       .Electric or magnetic motor
          417/410.3       ..Rotary expansible chamber pump

  3  417/462        (1 OR, 2 XR)
          Class    417 :  PUMPS
          417/437         EXPANSIBLE CHAMBER TYPE
          417/460         .Moving cylinder
          417/462         ..Unidirectionally rotating cylinder
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3 418/201.1 (1 OR, 2 XR)
Class 418 : ROTARY EXPANSIBLE CHAMBER DEVICES
418/191 INTERENGAGING ROTATING MEMBERS
418/201.1 .Helical or herringbone

2 123/450 (1 OR, 1 XR)
Class 123 : INTERNAL-COMBUSTION ENGINES
123/434 CHARGE FORMING DEVICE (E.G., POLLUTION CONTROL)

123/445 .Fuel injection system
123/446 ..Fuel pump flow regulation
123/448 ...Sequential distributor
123/450 ....Rotary distributor

2 180/65.7 (0 OR, 2 XR)
Class 180 : MOTOR VEHICLES
180/54.1 POWER
180/65.1 .Electric
180/65.6 ..With gearing between electric motor and drive wheel
180/65.7 ...Gearing is a changeable ratio gearing

2 180/65.8 (0 OR, 2 XR)
Class 180 : MOTOR VEHICLES
180/54.1 POWER
180/65.1 .Electric
180/65.8 ..With electronic devices (logic gates, semi-conductors, vacuum tubes, etc.) in control circuit

2 267/140.12 (1 OR, 1 XR)
Class 267 : SPRING DEVICES
267/136 RESILIENT SHOCK OR VIBRATION ABSORBER
267/140.11 .Including energy absorbing means or feature (e.g., supplemental vehicle equipment, such as motor mount, seat, etc., including additional fluid or friction energy absorber)
267/140.12 ..Having concentric coaxial spring between plural confining means for radial force

2 267/140.13 (1 OR, 1 XR)
Class 267 : SPRING DEVICES
267/136 RESILIENT SHOCK OR VIBRATION ABSORBER
267/140.11 .Including energy absorbing means or feature (e.g., supplemental vehicle equipment, such as motor mount, seat, etc., including additional fluid or friction energy absorber)
267/140.13 ..Axial

2 277/318 (0 OR, 2 XR)
Class 277 : SEAL FOR A JOINT OR JUNCTURE
277/317 SEAL COMBINED WITH INDICATOR, SAMPLER, OR INSPECTION FEATURE
277/318 .Fluid pressure

2 277/375 (0 OR, 2 XR)

Class 277 : SEAL FOR A JOINT OR JUNCTURE
277/345 SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E., DYNAMIC SEAL)
277/358 .Relatively rotatable radially extending sealing face member (e.g., face, mechanical, etc.)
277/370 ..Installation, removal, assembly, disassembly, or repair feature
277/371 ...Unitized seal assembly (e.g., cartridge, etc.)
277/375 ....Mounted in housing or casing

2 277/408 (0 OR, 2 XR)
Class 277 : SEAL FOR A JOINT OR JUNCTURE
277/345 SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E., DYNAMIC SEAL)
277/358 .Relatively rotatable radially extending sealing face member (e.g., face, mechanical, etc.)
277/408 ..Introduction, circulation, or removal of fluid

2 310/115 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/114 ..Plural rotary elements
310/115 ...Field and armature both rotate

2 310/156.32 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/152 ..Permanent magnet machines
310/156.01 ...Permanent magnet rotor
310/156.32 ....Including an axial air gap

2 310/156.36 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/152 ..Permanent magnet machines
310/156.01 ...Permanent magnet rotor
310/156.32 ....Including an axial air gap
310/156.36 .....With plural sets of rotating magnets

2 310/166 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/159 ..A.C.
310/166 ...Induction

2 310/178 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/177 ..D.C.
310/178 ...Homopolar

2 310/179 (0 OR, 2 XR)

Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/179 ..Windings and core structure

2 310/185 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/179 ..Windings and core structure
310/180 ...Field or excitation windings or structure
310/184 ....Plural field windings
310/185 .....Plural sets of poles

2 310/254 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/254 ..Stator structure

2 310/261 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/261 ..Rotor structure

2 310/40MM (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/40MM ..Miniature motors

2 310/68B (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/66 ..With other elements
310/68R ...Electric circuit elements
310/68B ....Condition responsive (e.g., position, torque, etc.)

2 310/89 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/66 ..With other elements
310/85 ...Mechanical shields or protectors
310/89 ....Housings, windows or covers

2 318/139 (2 OR, 0 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/139 BATTERY-FED MOTOR SYSTEMS

2 318/466 (2 OR, 0 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/445 AUTOMATIC AND/OR WITH TIME-DELAY MEANS (E.G., AUTOMATIC STARTING AND/OR STOPPING)
318/466 .Movement, position, or limit-of-travel

2 318/539 (0 OR, 2 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/538 MOTOR STRUCTURE ADJUSTMENT OR CONTROL
318/539 .Both armature and field structures rotatable or adjustable

2 318/696 (1 OR, 1 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/696 OPEN-LOOP STEPPING MOTOR CONTROL SYSTEMS

2 318/701 (2 OR, 0 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/700 SYNCHRONOUS MOTOR SYSTEMS
318/701 .Hysteresis or reluctance motor systems

2 318/773 (1 OR, 1 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/727 INDUCTION MOTOR SYSTEMS
318/767 .Primary circuit control
318/772 ..Plural speed
318/773 ...Pole changing

2 322/32 (2 OR, 0 XR)
Class 322 : ELECTRICITY: SINGLE GENERATOR SYSTEMS
322/17 AUTOMATIC CONTROL OF GENERATOR OR DRIVING MEANS

322/29 .Speed or frequency of generator
322/32 ..Frequency responsive devices or networks

2 324/161 (2 OR, 0 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/160 ELECTRICAL SPEED MEASURING
324/161 .Speed comparing means

2 324/166 (0 OR, 2 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/160 ELECTRICAL SPEED MEASURING
324/166 .Including speed-related frequency generator

2 360/133 (0 OR, 2 XR)
Class 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL
360/131 RECORD MEDIUM
360/132 .In container
360/133 ..For disk

2 366/147 (1 OR, 1 XR)
Class 366 : AGITATING
366/144 WITH HEATING OR COOLING
366/147 .Medium in stirrer or mixing chamber

2 366/84 (1 OR, 1 XR)
Class 366 : AGITATING
366/69 RUBBER OR HEAVY PLASTIC WORKING
366/79 .Stirrer is through-pass screw conveyor
366/83 ..Plural screw conveyors on separate shafts
366/84 ...In parallel intercommunicating mixing chambers

2 366/89 (0 OR, 2 XR)
Class 366 : AGITATING
366/69 RUBBER OR HEAVY PLASTIC WORKING
366/79 .Stirrer is through-pass screw conveyor
366/89 ..Varying diameter of shaft

2 384/107 (1 OR, 1 XR)
Class 384 : BEARINGS
384/91 ROTARY BEARING
384/100 .Fluid bearing
384/107 ..Radial and thrust

2 384/110 (0 OR, 2 XR)
Class 384 : BEARINGS
384/91 ROTARY BEARING
384/100 .Fluid bearing
384/107 ..Radial and thrust
384/110 ...Conical

2 384/448 (0 OR, 2 XR)
Class 384 : BEARINGS
384/91 ROTARY BEARING
384/445 .Antifriction bearing
384/448 ..Sensor or inspection features; liquid metal or shipping protection features; bearing member integral with seal

2 415/108 (1 OR, 1 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/108 CASING AND SPACED HOUSING WITH SPACE VENTED TO WORKING FLUID

2 415/112 (2 OR, 0 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/110 WITH LUBRICATING, SEALING, PACKING OR BEARING MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FLUID OR FLUID BIASED SEAL, ETC.)
415/111 .For shaft sealing, packing, lubricating or bearing means
415/112 ..With inlet and outlet connections

2 415/113 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/110 WITH LUBRICATING, SEALING, PACKING OR BEARING MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FLUID OR FLUID BIASED SEAL, ETC.)
415/111 .For shaft sealing, packing, lubricating or bearing means
415/113 ..Fluid biased, movable or resilient portion

2 415/115 (2 OR, 0 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/115 WITH PASSAGE IN BLADE, VANE, SHAFT OR ROTARY DISTRIBUTOR COMMUNICATING WITH WORKING FLUID

2 415/176 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS

415/175 INCLUDING ADDITIONAL MEANS CAUSING OR CONTROLLING FLUID FLOW FOR HEAT EXCHANGING, LUBRICATING OR SEALING

415/176 .Means subjected to or is working fluid

2 415/199.5 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/182.1 WORKING FLUID PASSAGE OR DISTRIBUTING MEANS ASSOCIATED WITH RUNNER (E.G., CASING, ETC.)
415/198.1 .Plural rigidly related blade sets
415/199.4 ..Including an axial-flow blade set
415/199.5 ...Plural serial axial-flow blade sets with intermediate stationary flow diverter(s)

2 415/229 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/229 BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART

2 415/230 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/229 BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART
415/230 .Seal

2 415/231 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/229 BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART
415/230 .Seal
415/231 ..Resiliently biased

2 415/26 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/13 WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE
415/26 .Responsive to moving member developed fluid force, current or pressure

2 415/49 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/13 WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE
415/47 .Temperature or fluid force responsive member
415/49 ..Fluid force responsive member controls working fluid

2 416/114 (0 OR, 2 XR)
Class 416 : FLUID REACTION SURFACES
416/98 SUSTAINED ANCILLARY MOVEMENT OF ROTARY WORKING MEMBER (E.G., CYCLIC FEATHERING, ETC.)
416/112 .Responsive to fixed actuator (e.g., cam or trip, etc.)
416/113 ..Axial cam
416/114 ...Selectively adjustable

2 416/96A (0 OR, 2 XR)

Class 416 : FLUID REACTION SURFACES
416/95 WITH HEATING, COOLING OR THERMAL INSULATION MEANS
416/96R .Changing state mass within or fluid flow through working member or carrier
416/96A ..Blade inserts

2 416/97R (0 OR, 2 XR)
Class 416 : FLUID REACTION SURFACES
416/95 WITH HEATING, COOLING OR THERMAL INSULATION MEANS
416/96R .Changing state mass within or fluid flow through working member or carrier
416/97R ..Flow exhausted to working fluid

2 417/203 (0 OR, 2 XR)
Class 417 : PUMPS
417/199.1 DIVERSE PUMPS
417/201 .Including rotary nonexpansible chamber type
417/203 ..Preceding diverse pump

2 417/204 (2 OR, 0 XR)
Class 417 : PUMPS
417/199.1 DIVERSE PUMPS
417/204 .Moving partition or cylinder of rotary pump forms or actuates reciprocating pump

2 417/269 (0 OR, 2 XR)
Class 417 : PUMPS
417/269 THREE OR MORE CYLINDERS ARRANGED IN PARALLEL, RADIAL, OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION AXIS

2 417/42 (2 OR, 0 XR)
Class 417 : PUMPS
417/1 CONDITION RESPONSIVE CONTROL OF PUMP DRIVE MOTOR
417/42 .In response to pump speed

2 417/423.12 (0 OR, 2 XR)
Class 417 : PUMPS
417/321 MOTOR DRIVEN
417/410.1 .Electric or magnetic motor
417/423.1 ..Rotary motor and rotary nonexpansible chamber pump
417/423.12 ...Having bearing

2 417/45 (0 OR, 2 XR)
Class 417 : PUMPS
417/1 CONDITION RESPONSIVE CONTROL OF PUMP DRIVE MOTOR
417/44.1 .By control of electric or magnetic drive motor

417/45 ..By changing electrical characteristic of motor or motor circuit

2 417/486 (0 OR, 2 XR)
Class 417 : PUMPS
417/437 EXPANSIBLE CHAMBER TYPE

417/486 .Plural pumping members in single pump chamber

2 425/379.1 (0 OR, 2 XR)
Class 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR TREATING: APPARATUS
425/376.1 STOCK PRESSURIZING MEANS OPERABLY ASSOCIATED WITH DOWNSTREAM SHAPING ORIFICE
425/378.1 .Including heating or cooling means
425/379.1 ..Plural spaced

2 433/126 (0 OR, 2 XR)
Class 433 : DENTISTRY
433/25 APPARATUS
433/103 .Having motor or means to transmit motion from motor to tool (e.g., "engine")
433/114 ..Hand-held tool or handpiece
433/126 ...Having means facilitating assembly or disassembly of tool or handpiece

2 433/132 (2 OR, 0 XR)
Class 433 : DENTISTRY
433/25 APPARATUS
433/103 .Having motor or means to transmit motion from motor to tool (e.g., "engine")
433/114 ..Hand-held tool or handpiece
433/131 ...Having motor
433/132 ....Rotary fluid turbine

2 494/37 (1 OR, 1 XR)
Class 494 : IMPERFORATE BOWL: CENTRIFUGAL SEPARATORS
494/37 PROCESS

Butler, Douglas

From: PLUS
Sent: Wednesday, March 03, 2004 9:09 AM
To: Butler, Douglas
Subject: PLUS Results for 10662348

Here are the PLUS search results for 10662348.

This search was prepared by the staff of the Scientific and Technical Information Center, SIRA. If you have questions or comments about this search, please reply via email to PLUS@uspto.gov.


10662348_QUAL.txt


10662348_LIST.txt


10662348_WEST.txt


10662348_EAST.txt


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PLUS Search Results for S/N 10662348, Searched March 03, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

5678786	4400659	4920293
4831298	4407258	4922406
4973233	4409505	4955791
5394283	4425883	4986740
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4307309	4445822	5015149
4412796	4447220	5176261
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4506558	4455499	5197861
4619349	4461534	5215436
4628245	4468604	5216339
4632337	4477760	5228828
4759324	4479404	5231284
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5373436	4553903	5279495
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10662348_CLS
Most Frequently Occurring Classifications of Patents Returned
From A Search of 10662348 on March 03, 2004

Original Classifications

4	123/216
4	310/49R
4	318/254
3	60/487
3	310/90
3	360/97.03
2	29/598
2	318/139
2	318/466
2	318/701
2	322/32
2	324/161
2	415/112
2	415/115
2	417/204
2	417/42
2	433/132

Cross-Reference Classifications

6	310/268
6	310/42
5	318/254
4	123/242
4	310/112
4	310/114
4	310/67R
4	360/98.07
4	360/99.08
3	91/485
3	310/198
3	310/68R
3	310/90
3	318/138
3	415/111
3	417/205
3	417/410.3
2	29/596
2	29/598
2	180/65.7
2	180/65.8
2	277/318
2	277/375
2	277/408
2	310/115
2	310/156.36
2	310/162
2	310/179
2	310/185
2	310/89
2	318/539
2	324/166
2	360/133
2	366/89
2	384/110

2 384/448
2 415/113
2 415/176
2 415/199.5
2 415/229
2 415/230
2 415/231
2 415/26
2 415/49
2 416/114
2 416/96A
2 416/97R
2 417/203
2 417/269
2 417/423.12
2 417/45
2 417/462
2 417/486
2 418/201.1
2 425/379.1
2 433/126

Combined Classifications
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6 310/268
6 310/42
6 310/90
5 123/216
5 123/242
5 310/114
5 310/49R
5 310/67R
5 360/98.07
4 29/598
4 310/112
4 360/99.08
3 29/596
3 60/487
3 91/485
3 310/162
3 310/198
3 310/68R
3 318/138
3 360/97.03
3 415/111
3 417/205
3 417/410.3
3 417/462
3 418/201.1
2 123/450
2 180/65.7
2 180/65.8
2 267/140.12
2 267/140.13
2 277/318
2 277/375
2 277/408
2 310/115
2 310/156.32

2 310/156.36
2 310/166
2 310/178
2 310/179
2 310/185
2 310/254
2 310/261
2 310/40MM
2 310/68B
2 310/89
2 318/139
2 318/466
2 318/539
2 318/696
2 318/701
2 318/773
2 322/32
2 324/161
2 324/166
2 360/133
2 366/147
2 366/84
2 366/89
2 384/107
2 384/110
2 384/448
2 415/108
2 415/112
2 415/113
2 415/115
2 415/176
2 415/199.5
2 415/229
2 415/230
2 415/231
2 415/26
2 415/49
2 416/114
2 416/96A
2 416/97R
2 417/203
2 417/204
2 417/269
2 417/42
2 417/423.12
2 417/45
2 417/486
2 425/379.1
2 433/126
2 433/132
2 494/37

10662348_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned From A Search of 10662348 on March 03, 2004

9 318/254 (4 OR, 5 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/254 SELF-COMMUTATED IMPULSE OR RELUCTANCE MOTORS

6 310/268 (0 OR, 6 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/261 ..Rotor structure
310/264 ...Armatures
310/268 ....Disc

6 310/42 (0 OR, 6 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/42 ..With assembling, metal casting or machining feature

6 310/90 (3 OR, 3 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/66 ..With other elements
310/90 ...Bearing or air-gap adjustment or bearing lubrication

5 123/216 (4 OR, 1 XR)
Class 123 : INTERNAL-COMBUSTION ENGINES
123/200 ROTARY
123/216 .With charge treatment means

5 123/242 (1 OR, 4 XR)
Class 123 : INTERNAL-COMBUSTION ENGINES
123/200 ROTARY
123/241 .With compression, combustion, and expansion in a single variable volume
123/242 ..Planetating rotor

5 310/114 (1 OR, 4 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/114 ..Plural rotary elements

5 310/49R (4 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/46 ..Magnetic motors
310/49R ...Step-by-step

5 310/67R (1 OR, 4 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC

310/40R .Rotary
310/66 ..With other elements
310/67R ...Inbuilt or incorporated unit

5 360/98.07 (1 OR, 4 XR)
Class 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL
360/88 RECORD TRANSPORT WITH HEAD STATIONARY DURING TRANSDUCING
360/97.01 .Disk record
360/98.01 ..Plural disks
360/98.07 ...Rotational drive detail

4 29/598 (2 OR, 2 XR)
Class 029 : METAL WORKING
29/592 METHOD OF MECHANICAL MANUFACTURE
29/592.1 .Electrical device making
29/596 ..Dynamoelectric machine
29/598 ...Rotor

4 310/112 (0 OR, 4 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/112 ..Plural units, structurally united

4 360/99.08 (0 OR, 4 XR)
Class 360 : DYNAMIC MAGNETIC INFORMATION STORAGE OR RETRIEVAL
360/88 RECORD TRANSPORT WITH HEAD STATIONARY DURING TRANSDUCING
360/97.01 .Disk record
360/99.08 ..Rotational drive detail

3 29/596 (1 OR, 2 XR)
Class 029 : METAL WORKING
29/592 METHOD OF MECHANICAL MANUFACTURE
29/592.1 .Electrical device making
29/596 ..Dynamoelectric machine

3 60/487 (3 OR, 0 XR)
Class 060 : POWER PLANTS
60/325 PRESSURE FLUID SOURCE AND MOTOR
60/487 .Input pump and rotary output motor system having displacement varying type of direction or speed selector

3 91/485 (0 OR, 3 XR)
Class 091 : MOTORS: EXPANSIBLE CHAMBER TYPE
91/472 THREE OR MORE CYLINDERS ARRANGED IN PARALLEL RADIAL OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION AXIS
91/484 .Control valve seating surface contact maintained by fluid pressure bias
91/485 ..Disc valve

3 310/162 (1 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC

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          310/40R        .Rotary
          310/159        ..A.C.
          310/162        ...Synchronous

  3  310/198        (0 OR, 3 XR)
          Class    310 :  ELECTRICAL GENERATOR OR MOTOR STRUCTURE
          310/10         DYNAMOELECTRIC
          310/40R        .Rotary
          310/179        ..Windings and core structure
          310/195        ...Armature or primary
          310/198        ....Plural windings

  3  310/68R        (0 OR, 3 XR)
          Class    310 :  ELECTRICAL GENERATOR OR MOTOR STRUCTURE
          310/10         DYNAMOELECTRIC
          310/40R        .Rotary
          310/66         ..With other elements
          310/68R        ...Electric circuit elements

  3  318/138        (0 OR, 3 XR)
          Class    318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
          318/138        SPACE-DISCHARGE-DEVICE COMMUTATED MOTOR

  3  360/97.03      (3 OR, 0 XR)
          Class    360 :  DYNAMIC MAGNETIC INFORMATION STORAGE OR
                           RETRIEVAL
          360/88         RECORD TRANSPORT WITH HEAD STATIONARY DURING
                              TRANSDUCING
          360/97.01      .Disk record
          360/97.02      ..Environmental control (e.g., air filter,
                            temperature control)
          360/97.03      ...Plural disks

  3  415/111        (0 OR, 3 XR)
          Class    415 :  ROTARY KINETIC FLUID MOTORS OR PUMPS
          415/110        WITH LUBRICATING, SEALING, PACKING OR BEARING
                             MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FL
UID
                             OR FLUID BIASED SEAL, ETC.)
          415/111        .For shaft sealing, packing, lubricating or
                            bearing means

  3  417/205        (0 OR, 3 XR)
          Class    417 :  PUMPS
          417/199.1      DIVERSE PUMPS
          417/205        .Series

  3  417/410.3      (0 OR, 3 XR)
          Class    417 :  PUMPS
          417/321        MOTOR DRIVEN
          417/410.1      .Electric or magnetic motor
          417/410.3      ..Rotary expansible chamber pump

  3  417/462        (1 OR, 2 XR)
          Class    417 :  PUMPS
          417/437        EXPANSIBLE CHAMBER TYPE
          417/460        .Moving cylinder
          417/462        ..Unidirectionally rotating cylinder
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3 418/201.1 (1 OR, 2 XR)
Class 418 : ROTARY EXPANSIBLE CHAMBER DEVICES
418/191 INTERENGAGING ROTATING MEMBERS
418/201.1 .Helical or herringbone

2 123/450 (1 OR, 1 XR)
Class 123 : INTERNAL-COMBUSTION ENGINES
123/434 CHARGE FORMING DEVICE (E.G., POLLUTION CONTROL)

123/445 .Fuel injection system
123/446 ..Fuel pump flow regulation
123/448 ...Sequential distributor
123/450 ....Rotary distributor

2 180/65.7 (0 OR, 2 XR)
Class 180 : MOTOR VEHICLES
180/54.1 POWER
180/65.1 .Electric
180/65.6 ..With gearing between electric motor and drive wheel
180/65.7 ...Gearing is a changeable ratio gearing

2 180/65.8 (0 OR, 2 XR)
Class 180 : MOTOR VEHICLES
180/54.1 POWER
180/65.1 .Electric
180/65.8 ..With electronic devices (logic gates, semi-conductors, vacuum tubes, etc.) in control circuit

2 267/140.12 (1 OR, 1 XR)
Class 267 : SPRING DEVICES
267/136 RESILIENT SHOCK OR VIBRATION ABSORBER
267/140.11 .Including energy absorbing means or feature (e.g., supplemental vehicle equipment, such as motor mount, seat, etc., including additional fluid or friction energy absorber)
267/140.12 ..Having concentric coaxial spring between plural confining means for radial force

2 267/140.13 (1 OR, 1 XR)
Class 267 : SPRING DEVICES
267/136 RESILIENT SHOCK OR VIBRATION ABSORBER
267/140.11 .Including energy absorbing means or feature (e.g., supplemental vehicle equipment, such as motor mount, seat, etc., including additional fluid or friction energy absorber)
267/140.13 ..Axial

2 277/318 (0 OR, 2 XR)
Class 277 : SEAL FOR A JOINT OR JUNCTURE
277/317 SEAL COMBINED WITH INDICATOR, SAMPLER, OR INSPECTION FEATURE
277/318 .Fluid pressure

2 277/375 (0 OR, 2 XR)

Class 277 : SEAL FOR A JOINT OR JUNCTURE
277/345 SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E., DYNAMIC SEAL)
277/358 .Relatively rotatable radially extending sealing face member (e.g., face, mechanical, etc.)
277/370 ..Installation, removal, assembly, disassembly, or repair feature
277/371 ...Unitized seal assembly (e.g., cartridge, etc.)
277/375 ....Mounted in housing or casing

2 277/408 (0 OR, 2 XR)
Class 277 : SEAL FOR A JOINT OR JUNCTURE
277/345 SEAL BETWEEN RELATIVELY MOVABLE PARTS (I.E., DYNAMIC SEAL)
277/358 .Relatively rotatable radially extending sealing face member (e.g., face, mechanical, etc.)
277/408 ..Introduction, circulation, or removal of fluid

2 310/115 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/114 ..Plural rotary elements
310/115 ...Field and armature both rotate

2 310/156.32 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/152 ..Permanent magnet machines
310/156.01 ...Permanent magnet rotor
310/156.32 ....Including an axial air gap

2 310/156.36 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/152 ..Permanent magnet machines
310/156.01 ...Permanent magnet rotor
310/156.32 ....Including an axial air gap
310/156.36 .....With plural sets of rotating magnets

2 310/166 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/159 ..A.C.
310/166 ...Induction

2 310/178 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/177 ..D.C.
310/178 ...Homopolar

2 310/179 (0 OR, 2 XR)

Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/179 ..Windings and core structure

2 310/185 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/179 ..Windings and core structure
310/180 ...Field or excitation windings or structure
310/184 ....Plural field windings
310/185 .....Plural sets of poles

2 310/254 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/254 ..Stator structure

2 310/261 (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/261 ..Rotor structure

2 310/40MM (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/40MM ..Miniature motors

2 310/68B (1 OR, 1 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/66 ..With other elements
310/68R ...Electric circuit elements
310/68B ....Condition responsive (e.g., position, torque, etc.)

2 310/89 (0 OR, 2 XR)
Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
310/10 DYNAMOELECTRIC
310/40R .Rotary
310/66 ..With other elements
310/85 ...Mechanical shields or protectors
310/89 ....Housings, windows or covers

2 318/139 (2 OR, 0 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/139 BATTERY-FED MOTOR SYSTEMS

2 318/466 (2 OR, 0 XR)
Class 318 : ELECTRICITY: MOTIVE POWER SYSTEMS
318/445 AUTOMATIC AND/OR WITH TIME-DELAY MEANS (E.G., AUTOMATIC STARTING AND/OR STOPPING)
318/466 .Movement, position, or limit-of-travel

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2  318/539       (0 OR, 2 XR)
       Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
       318/538       MOTOR STRUCTURE ADJUSTMENT OR CONTROL
       318/539       .Both armature and field structures rotatable
                        or adjustable

2  318/696       (1 OR, 1 XR)
       Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
       318/696       OPEN-LOOP STEPPING MOTOR CONTROL SYSTEMS

2  318/701       (2 OR, 0 XR)
       Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
       318/700       SYNCHRONOUS MOTOR SYSTEMS
       318/701       .Hysteresis or reluctance motor systems

2  318/773       (1 OR, 1 XR)
       Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
       318/727       INDUCTION MOTOR SYSTEMS
       318/767       .Primary circuit control
       318/772       ..Plural speed
       318/773       ...Pole changing

2  322/32        (2 OR, 0 XR)
       Class   322 :  ELECTRICITY:  SINGLE GENERATOR SYSTEMS
       322/17        AUTOMATIC CONTROL OF GENERATOR OR DRIVING MEANS

       322/29        .Speed or frequency of generator
       322/32        ..Frequency responsive devices or networks

2  324/161       (2 OR, 0 XR)
       Class   324 :  ELECTRICITY:  MEASURING AND TESTING
       324/160       ELECTRICAL SPEED MEASURING
       324/161       .Speed comparing means

2  324/166       (0 OR, 2 XR)
       Class   324 :  ELECTRICITY:  MEASURING AND TESTING
       324/160       ELECTRICAL SPEED MEASURING
       324/166       .Including speed-related frequency generator

2  360/133       (0 OR, 2 XR)
       Class   360 :  DYNAMIC MAGNETIC INFORMATION STORAGE OR
                        RETRIEVAL
       360/131       RECORD MEDIUM
       360/132       .In container
       360/133       ..For disk

2  366/147       (1 OR, 1 XR)
       Class   366 :  AGITATING
       366/144       WITH HEATING OR COOLING
       366/147       .Medium in stirrer or mixing chamber

2  366/84        (1 OR, 1 XR)
       Class   366 :  AGITATING
       366/69        RUBBER OR HEAVY PLASTIC WORKING
       366/79        .Stirrer is through-pass screw conveyor
       366/83        ..Plural screw conveyors on separate shafts
       366/84        ...In parallel intercommunicating mixing
                        chambers
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2 366/89 (0 OR, 2 XR)
Class 366 : AGITATING
366/69 RUBBER OR HEAVY PLASTIC WORKING
366/79 .Stirrer is through-pass screw conveyor
366/89 ..Varying diameter of shaft

2 384/107 (1 OR, 1 XR)
Class 384 : BEARINGS
384/91 ROTARY BEARING
384/100 .Fluid bearing
384/107 ..Radial and thrust

2 384/110 (0 OR, 2 XR)
Class 384 : BEARINGS
384/91 ROTARY BEARING
384/100 .Fluid bearing
384/107 ..Radial and thrust
384/110 ...Conical

2 384/448 (0 OR, 2 XR)
Class 384 : BEARINGS
384/91 ROTARY BEARING
384/445 .Antifriction bearing
384/448 ..Sensor or inspection features; liquid metal or shipping protection features; bearing member integral with seal

2 415/108 (1 OR, 1 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/108 CASING AND SPACED HOUSING WITH SPACE VENTED TO WORKING FLUID

2 415/112 (2 OR, 0 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/110 WITH LUBRICATING, SEALING, PACKING OR BEARING MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FLUID OR FLUID BIASED SEAL, ETC.)
415/111 .For shaft sealing, packing, lubricating or bearing means
415/112 ..With inlet and outlet connections

2 415/113 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/110 WITH LUBRICATING, SEALING, PACKING OR BEARING MEANS HAVING INTERNAL WORKING FLUID CONNECTION (E.G., FLUID OR FLUID BIASED SEAL, ETC.)
415/111 .For shaft sealing, packing, lubricating or bearing means
415/113 ..Fluid biased, movable or resilient portion

2 415/115 (2 OR, 0 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/115 WITH PASSAGE IN BLADE, VANE, SHAFT OR ROTARY DISTRIBUTOR COMMUNICATING WITH WORKING FLUID

2 415/176 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS

415/175 INCLUDING ADDITIONAL MEANS CAUSING OR CONTROLLING FLUID FLOW FOR HEAT EXCHANGING, LUBRICATING OR SEALING

415/176 .Means subjected to or is working fluid

2 415/199.5 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/182.1 WORKING FLUID PASSAGE OR DISTRIBUTING MEANS ASSOCIATED WITH RUNNER (E.G., CASING, ETC.)
415/198.1 .Plural rigidly related blade sets
415/199.4 ..Including an axial-flow blade set
415/199.5 ...Plural serial axial-flow blade sets with intermediate stationary flow diverter(s)

2 415/229 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/229 BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART

2 415/230 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/229 BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART
415/230 .Seal

2 415/231 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/229 BEARING, SEAL, OR LINER BETWEEN SHAFT OR SHAFT SLEEVE AND STATIC PART
415/230 .Seal
415/231 ..Resiliently biased

2 415/26 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/13 WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE
415/26 .Responsive to moving member developed fluid force, current or pressure

2 415/49 (0 OR, 2 XR)
Class 415 : ROTARY KINETIC FLUID MOTORS OR PUMPS
415/13 WITH CONTROL MEANS RESPONSIVE TO NON-CYCLIC CONDITION SENSING, CENTRIFUGAL ACTUATION OR TORQUE
415/47 .Temperature or fluid force responsive member
415/49 ..Fluid force responsive member controls working fluid

2 416/114 (0 OR, 2 XR)
Class 416 : FLUID REACTION SURFACES
416/98 SUSTAINED ANCILLARY MOVEMENT OF ROTARY WORKING MEMBER (E.G., CYCLIC FEATHERING, ETC.)
416/112 .Responsive to fixed actuator (e.g., cam or trip, etc.)
416/113 ..Axial cam
416/114 ...Selectively adjustable

2 416/96A (0 OR, 2 XR)

Class 416 : FLUID REACTION SURFACES
416/95 WITH HEATING, COOLING OR THERMAL INSULATION MEANS
416/96R .Changing state mass within or fluid flow through working member or carrier
416/96A ..Blade inserts

2 416/97R (0 OR, 2 XR)
Class 416 : FLUID REACTION SURFACES
416/95 WITH HEATING, COOLING OR THERMAL INSULATION MEANS
416/96R .Changing state mass within or fluid flow through working member or carrier
416/97R ..Flow exhausted to working fluid

2 417/203 (0 OR, 2 XR)
Class 417 : PUMPS
417/199.1 DIVERSE PUMPS
417/201 .Including rotary nonexpansible chamber type
417/203 ..Preceding diverse pump

2 417/204 (2 OR, 0 XR)
Class 417 : PUMPS
417/199.1 DIVERSE PUMPS
417/204 .Moving partition or cylinder of rotary pump forms or actuates reciprocating pump

2 417/269 (0 OR, 2 XR)
Class 417 : PUMPS
417/269 THREE OR MORE CYLINDERS ARRANGED IN PARALLEL, RADIAL, OR CONICAL RELATIONSHIP WITH ROTARY TRANSMISSION AXIS

2 417/42 (2 OR, 0 XR)
Class 417 : PUMPS
417/1 CONDITION RESPONSIVE CONTROL OF PUMP DRIVE MOTOR
417/42 .In response to pump speed

2 417/423.12 (0 OR, 2 XR)
Class 417 : PUMPS
417/321 MOTOR DRIVEN
417/410.1 .Electric or magnetic motor
417/423.1 ..Rotary motor and rotary nonexpansible chamber pump
417/423.12 ...Having bearing

2 417/45 (0 OR, 2 XR)
Class 417 : PUMPS
417/1 CONDITION RESPONSIVE CONTROL OF PUMP DRIVE MOTOR
417/44.1 .By control of electric or magnetic drive motor
417/45 ..By changing electrical characteristic of motor or motor circuit

2 417/486 (0 OR, 2 XR)
Class 417 : PUMPS
417/437 EXPANSIBLE CHAMBER TYPE

417/486 .Plural pumping members in single pump chamber

2 425/379.1 (0 OR, 2 XR)
Class 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR TREATING: APPARATUS
425/376.1 STOCK PRESSURIZING MEANS OPERABLY ASSOCIATED WITH DOWNSTREAM SHAPING ORIFICE
425/378.1 .Including heating or cooling means
425/379.1 ..Plural spaced

2 433/126 (0 OR, 2 XR)
Class 433 : DENTISTRY
433/25 APPARATUS
433/103 .Having motor or means to transmit motion from motor to tool (e.g., "engine")
433/114 ..Hand-held tool or handpiece
433/126 ...Having means facilitating assembly or disassembly of tool or handpiece

2 433/132 (2 OR, 0 XR)
Class 433 : DENTISTRY
433/25 APPARATUS
433/103 .Having motor or means to transmit motion from motor to tool (e.g., "engine")
433/114 ..Hand-held tool or handpiece
433/131 ...Having motor
433/132 ....Rotary fluid turbine

2 494/37 (1 OR, 1 XR)
Class 494 : IMPERFORATE BOWL: CENTRIFUGAL SEPARATORS
494/37 PROCESS